

22 NOV 1949

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name L I N D E S N Ä S	Official Number 9133.	Nationality and Port of Registry Swedish Stockholm	Gross Tonnage 1205 (Swedish) 1200 (Ar.)	Date of Build 1950 2	Port of Survey Gothenburg
Moulded Dimensions: Length 67.06 M. Breadth 10.67 M. Depth 5.11 Metres.				Date of Survey Whilst building	
Freeboard Length 67.16 Metres to Centre Line of Rudder Stock.				Surveyor's Signature <i>Boje Roslund</i>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1995 M³				Particulars of Classification +100A1 Carrying Petroleum in bulk.	
Coefficient of fineness for use with Tables .68 (.641 actual)					

Depth for Freeboard (D).	M.	Depth correction.	Round of Beam correction.
Moulded depth	5.110	(a) Where D is greater than Table depth (D—Table depth) R = 8.33(5.121-4.478)16.959 = +91 mm.	Moulded Breadth (B) 10670 mm.
Stringer plate	0.011	(b) Where D is less than Table depth (if allowed) (Table depth—D) R = .643	Standard Round of Beam = $\frac{B \times 12}{50}$ = 213 mm.
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	Ship's Round of Beam = 215 mm.
Depth for Freeboard (D) =	5.121		Difference + 2 mm.
			Restricted to
			Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2}{4} \times .2827 = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equiv.</i>	20.271	20.271	2.290	---	20.271
» overhang <i>equiv.</i>	.474	.237	2.290	---	.237
R.Q.D. enclosed					
» overhang					
Bridge enclosed					
» overhang aft					
» overhang forward					
Fore enclosed	8.500	8.500	2.290	---	8.500
» overhang	.305	.152	2.290	---	.152
Tank aft <i>28.000x5.340</i>	---	19.017	1.000	1.000/1.830	10.393
» forward					
Tonnage opening aft					
» forward					
Total	29.550	48.177			39.553

Standard Height of Superstructure	1.830 M.
» » R.Q.D.	---
Deduction for complete superstructure	713 mm.
Percentage covered $\frac{S}{L} =$	44.00
» » $\frac{S_1}{L} =$	71.73
» » $\frac{E}{L} =$	58.90
Percentage from Table, Line A—Tanker	50.79
(corrected for absence of forecastle [if required])	
Percentage from Table, Line B.	---
(corrected for absence of forecastle [if required])	
Interpolation for bridge less than 2L (if required)	---
Deduction =	713 x .5079 = -362 mm.

SHEER CORRECTION.

Station	Standard Ordinate MM.	S M	Product MM.	Actual Ordinate MM.	Effective Ordinate MM.	S M	Product MM.
A.P.	813	1	813	815	815	1	815
1/6 L from A.P.	362	4	1448	362	362	4	1448
2/6 L	90	2	180	91	91	2	182
Amidships	---	4	---	---	---	4	---
2/6 L from F.P.	181	2	362	181	181	2	362
1/6 L	723	4	2892	725	725	4	2900
F.P.	1627	1	1627	1630	1630	1	1630
Total			7322				7337

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{15}{18} (.75 - .2200) = -1 \text{ mm.}$

If limited on account of midship superstructure. **.5300** If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =	5.121
Summer freeboard =	.398
Moulded draught (d) =	4.723
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$	98 mm.
Addition for Winter North Atlantic Freeboard <i>required</i>	98 + 55 = 153 mm.

Deduction for Fresh Water.

Displacement in salt water at summer load water line	$\Delta =$ 2242
Tons per inch immersion at summer load water line	T = 14.98
Deduction = $\frac{\Delta}{40 T}$ inches =	3.74" = 95 mm.

TABULAR FREEBOARD *corrected for Flush Deck (if required)*

Correction for coefficient **Nil**

	+	-	
Depth Correction	91	---	670
Deduction for superstructures	---	362	670
Sheer correction	---	1	
Round of Beam correction	---	---	
Correction for Thickness of Deck amidships	---	---	
Other corrections, scantlings, etc.	---	---	
	91	363	- 272
Summer Freeboard =			398

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **W65X Steel, Deck:—**

Tropical Fresh Water Line above Centre of Disc	193 mm.	Tropical Fresh Water Freeboard	398 mm.
Fresh Water Line	95 mm.	Fresh Water	205 mm.
Tropical Line	98 mm.	Tropical	303 mm.
Winter Line	98 mm.	Winter	300 mm.
Winter North Atlantic Line	153 mm.	Winter North Atlantic	496 mm.
			551 mm.

"LINDESNÄS".

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Displacement on shell plating and tons per inch immersion in salt water.

Displacement at	75 % of moulded depth	1730	tons, and	14.00	tons per inch.
"	" 85 %	"	"	14.60	" " "
"	" 95 %	"	"	15.11	" " "
"	" 100 %	"	"	15.35	" " "

Poop:-

at side 19.620
2/3 x .977 .651
Enclosed 20.271
Overhang (1125-651) .474

Trade of ship General.

Names of sister ships M.T. "Elfnäs" and "Tramnäs", of Stockholm, A-B. Lindholmens Varv's Yard Nos. 1009 and 1010 resp.

Builder's name and yard number A-B. Lindholmens Varv, Gothenburg, Yard No. 1011.

Owners Rederi A-B. Nordstjernan (Axel Axelsson Johnson, Mgr.), Stockholm.

Fee Kr. ---



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